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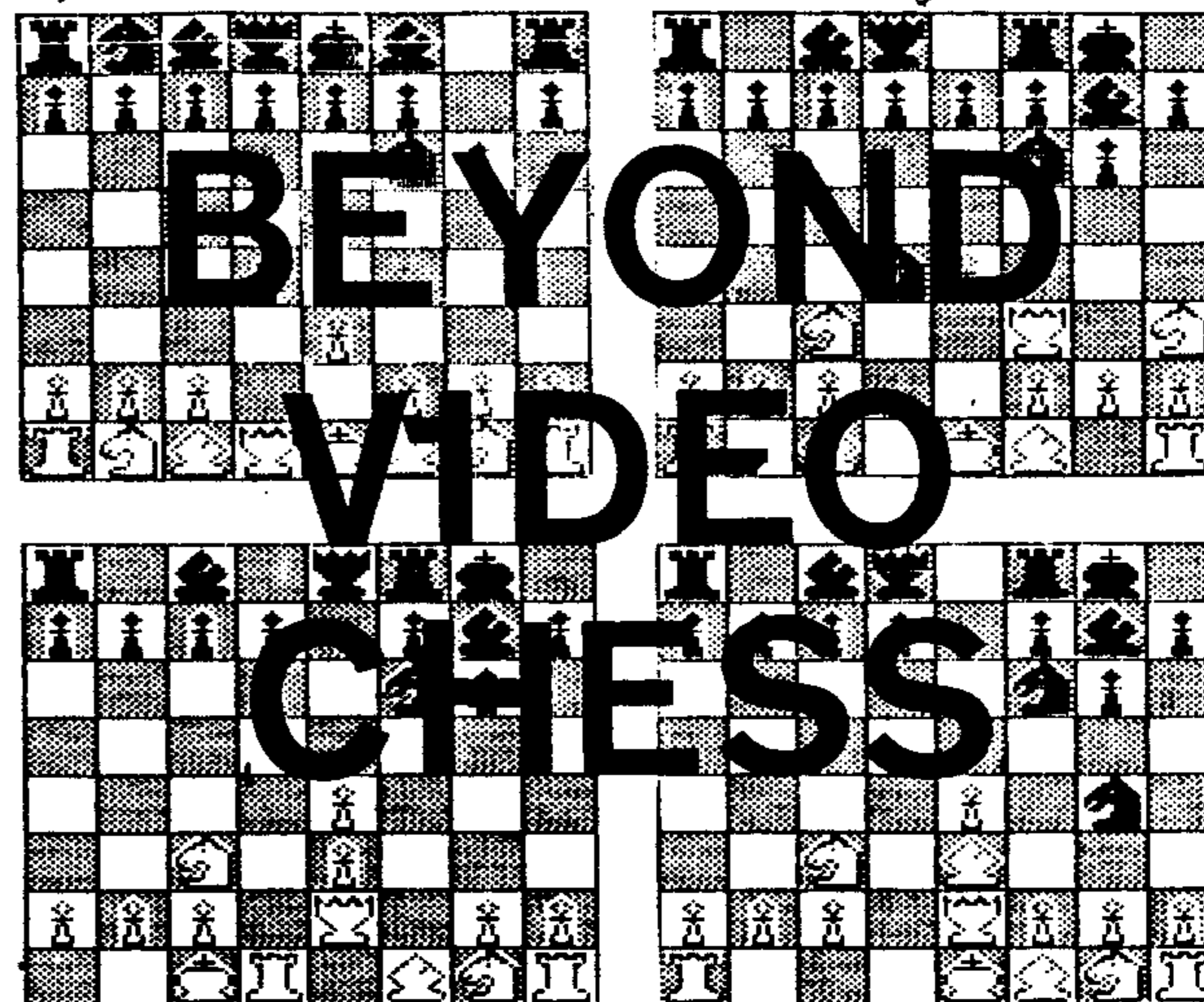
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BEYOND VIDEO CHESS

BY HARRY WILHELM

Beyond Video Chess

By Harry Wilhelm

Beyond Video Chess is a companion program for the popular Video Chess module manufactured by Texas Instruments Inc. for the TI-99/4A computer. This program provides significant enhancements for users of this cartridge. Beyond Video Chess enables you to save and load chess games to and from a diskette, print the game screen on your Epson-compatible printer, list the moves you have made in the game to a printer, or use one or more joysticks to move pieces on the game board. In short, Beyond Video Chess is for the serious Video Chess user - and those that would like to be.

Equipment Required

Beyond Video Chess requires the following equipment:

TI-99/4A console
32K Memory expansion
Disk drive system
Video Chess module
Extended BASIC OR Editor Assembler
OR Mini Memory

Joysticks and an Epson-compatible printer are also recommended. Loading Beyond Video Chess will also require one of the hardware configurations listed below.

Loading Beyond Video Chess

There are many ways to load Beyond Video Chess. All of them require some specific combination of hardware and/or software. If you are a more experienced user, a simple explanation of *what* Beyond Video Chess is may tell you what you need to know. If you don't quite understand what is being said in the next paragraph, proceed to the listing afterwards.

Beyond Video Chess is an interrupt-driven assembly language program. It is loaded into the 32K memory expansion via one of many methods described below, and runs concurrently with other applications - specifically the Video Chess module. Once loaded, it waits for a key press (or a joystick button to be pushed) and then it performs the requested action. Load this program, in other words, as you would load any interrupt-driven program.

There are many ways to load Beyond Video Chess. This list is not by any

means meant to be exhaustive:

- A simple way to load Beyond Video Chess is with a Navarone Widget. Place the Editor/Assembler or Mini-Memory in one slot of the widget (the middle one is best) and the Video Chess module on one of the outer slots. Put the module selector to the Editor/Assembler or Mini-Memory, select the module from the main menu, then select the "Load Program File" option of Editor/Assembler or the "Load and Run" option of Mini-Memory. The module will ask you to type in a program name - respond by typing *DSK1.CHESSPF* if using the Editor/Assembler or *DSK1.CHESSLR* if using Mini-Memory, and press *ENTER*. Once the program loads and runs move the module select switch/button on your widget to the slot that contains Video Chess, and enter your system specifications as described in the section entitled Using Beyond Video Chess. The program may also be loaded from Extended BASIC in the same manner by selecting it from the main menu with the program disk in drive one.

- Using a Load-interrupt switch: Place a Mini-Memory, Editor/Assembler or Extended BASIC module in the module port. If using Extended BASIC, place the Beyond Video Chess disk in drive one, and select Extended BASIC. Beyond Video Chess will automatically load and run. If you are using an Editor/Assembler or Mini-Memory module, follow the instructions detailed above for loading through these modules. Now replace the module with the Video Chess module. Press the load-interrupt switch and the Beyond Video Chess title screen will appear. Answer the questions as per the next section (Setting up Beyond Video Chess). Select Video Chess from the main menu, then proceed to the section Using Beyond Video Chess.

- Using a Corcomp/Myarc Disk controller: Place the Video Chess module in the module port. From the power-on screen select the "Disk Manager" option (if using a Corcomp disk controller) or select TI BASIC if using the Myarc. If using the Corcomp disk manager, select the "Load and Run" option from the File Utilities menu, type *DSK1.CHESSLR* as the filename and press *ENTER*. If using the Myarc Disk controller type *CALL LR("DSK1.CHESSLR")* from the TI BASIC command prompt and press *ENTER*. In either case, the program will automatically load and run. After selecting your options as per Setting up Beyond Video Chess, advance to the main menu, select Video Chess, and proceed to the section Using Beyond Video Chess.

Other methods can be used to load Beyond Video Chess - including the Horizon RAM-disk, other RAM-disk cards, the Myarc Geneve 9640, and the

list continues on and on. If you are having trouble, send a note to the address at the end of this manual with a list of what you have, and we can tell you how to load the program with your equipment.

Setting up Beyond Video Chess

When Beyond Video Chess first loads a title screen will appear. Press any key at this point to proceed (making sure Video Chess is the module selected or in the port before doing so). The program first asks what your printer name is - the default is set to *PIO.CR*. This should work fine with most Epson-compatible parallel printers. The next prompt requires you to have your printer manual handy - you need to enter the decimal codes that give your printer a line spacing of 1/9 of an inch (the codes for either 24/216", 20/180" or 8/72"). Consult your printer manual if the default setting doesn't work for your printer. Next, you'll be prompted to enter the page-length. This setting is to avoid splitting a screen-dump between two pages. If you want the printout to be continuous - set this number to a very large number such as 62000. The number entered is the number of lines the program will print before performing a form-feed.

After entering the page length the power-on screen of your computer will appear with a green border around it - this means that Beyond Video Chess is loaded and active. Advance to the main menu and select Video Chess. If you made a mistake, press *QUIT* (FCTN =), and you will be automatically returned to the Beyond Video Chess title screen.

Using Beyond Video Chess

After you have loaded Beyond Video Chess as described in the previous two sections, you should at this point be using the Video Chess module. You will know that Beyond Video Chess is running because the title screen is different. If it isn't, proceed to the section In Case of Trouble.

Begin playing your Video Chess game as you normally would, and refer to the following sub-sections for information about specific Beyond Video Chess features.

SAVING AND LOADING GAMES TO DISK

To load a game from disk, select option 6 from the main menu of Video Chess - "Load game from cassette". You will receive the appropriate prompts during the load operation.

At any time while you are playing a game, you can save it to disk. To save a game, press *FCTN X* (the same key formerly used to save a game to cassette). Again you will receive the appropriate prompts for disk operations. In case you haven't guessed - using Beyond Video Chess precludes saving and loading from cassette.

USING THE JOYSTICKS

With Beyond Video Chess you no longer have to use the cumbersome algebraic notation Video Chess expects for entering moves. With one or more joysticks plugged in, and the *ALPHA LOCK* key up, simply press the fire button on the joystick you wish to use. Once done, a cursor will appear on the upper left corner of the game board. Use the joystick to move the cursor over the piece you want to move, and press the fire button again. Then move the cursor to where you want the piece to be placed, and press the fire button a third time to deposit it at that square.

If you are playing against another person, and you have two joysticks, you can both use your own. Beyond Video Chess can read from either. If your partner accidently pushes the fire button on his stick at the start of your turn, simply press your own fire button to cancel his/her mistake and erase the cursor. Then push your fire button again and your cursor will re-appear.

Occasionally, dirty contacts in the fire button will cause slightly erratic behavior. This manifests itself by your joystick not responding to your movement or it telling the computer you pushed the fire button when you didn't. If this happens, simply press the fire button once or twice more until you get the "IN-VALID MOVE" message. This will clear the erroneous input and let you use the joystick again without having to press *FCTN 4*.

SCREEN DUMP

Beyond Video Chess includes a screen dump utility that can be used at any time while using the Video Chess module except when the computer is thinking during its move. To get a screen dump, simply press *P* for "Picture" or "Print Screen" (with the printer on) and the screen will quickly be painted on the page. This screen dump uses shades of gray to represent colors, and hence little detail is lost. This will only work with the Video Chess module.

LISTING A GAME TO THE PRINTER

At any point in a game you may want to get a list of the moves that were made. Press *L* for "List Moves" and the Video Chess module will go into "Replay" mode (where it re-displays all moves to that point). However, while Video Chess only displays the moves made, Beyond Video Chess will also list them to your printer.

It is also possible to include screen dumps on particularly interesting moves while listing them. To do this press *FCTN 8* to pause the replay at the desired move, and then press *P* to get a screen dump of it. When the screen dump is complete press *FCTN 8* and the replay will continue, and the listing will resume printing.

Both the list of moves and the screen dump will be placed at the left hand side of your paper. This allows you to use the right hand side to make notes about the game.

After Using Beyond Video Chess

You may want to use a different cartridge after using Video Chess with Beyond Video Chess. Inserting the new cartridge will return you to the color bar screen. Make sure that the screen does not have the green border that indicates Beyond Video Chess is there. If it does, turn the console on and off again to remove Beyond Video Chess.

In Case of Trouble

If on loading Beyond Video Chess the green border does not appear around the master title screen, or if it does but the functions described above do not seem to work, it is likely that Beyond Video Chess was damaged in loading the Video Chess module. If you had to remove a module to insert Video Chess there is a 50% chance that the program will have been damaged due to stray electrical impulses caused by swapping cartridges. If so, you'll have to re-load Beyond Video Chess and try again. A "HOLD" switch, which has to be installed manually, greatly alleviates this problem.

Reloading the program is pretty much a universal method of correcting any problem that comes up. If the program does not load from disk, it is likely that you have a bad disk and you should return it for replacement if it meets the warranty requirements listed at the end of this manual.

Experts Section:
Modifying your Video Chess module

If you have some experience with computer hardware, and you have difficulty making Beyond Video Chess load following the instructions above or you don't have the hardware required to load it using one of the procedures above, you may want to consider permanently modifying your cartridge.

You may have noticed that every time you insert a cartridge into the cartridge slot you are returned to the color bar title screen. This is because every cartridge has what is called a "reset" resistor (the resistor is a little cylindrical piece of multi-striped ceramic with 2 wires sticking out of it) - which tells the computer to return the user to the title screen when a module is inserted. The problem is that Beyond Video Chess cannot be started from the color bar screen. A solution is to avoid the screen entirely. This can be done by sniping one of the wires (or leads) of the resistor on the module with finger-nail trimmers (or any other small pair of clippers). Snipping this one lead will prevent a "reset" from being forced on the computer. Hence, you could load Beyond Video Chess by putting the Editor/Assembler module in the cartridge port, loading the program normally, running the program, and then removing the Editor/Assembler module and putting the Video Chess module in the cartridge slot. Since the modified module won't reset the computer, Beyond Video Chess won't be destroyed by the module!

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Look at the bottom of the cartridge. Open it by unscrewing the central phillips head screw. Then, using a flat screw-driver, pry outward on the two catches at the front of the module (the side with the edge-connector). After they have both been unlatched, you can open the module up and remove the circuit board. Snip the lead as shown on the accompanying diagram (it is the last resistor on the right hand side of the circuit board with the edge connector facing towards you), then re-assemble the module. This operation will not harm the module or its operation in any way if performed properly. The only side effect may result from trying to use Video Chess without Beyond Video Chess - you may have to turn off and on the console to return to the color bar title screen. NOTE: This modification voids any warranty on your cartridge, so be careful!.

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Requires:

TI-99/4A CONSOLE, 32K MEMORY EXPANSION, DISK DRIVE SYSTEM, VIDEO CHESS MODULE, EXTENDED BASIC OR EDITOR/ASSEMBLER OR MINI MEMORY, AND ONE OF THE FOLLOWING: A WIDGET, INTERRUPT SWITCH, CORCOMP OR MYARC DISK CONTROLLER

Suggested retail $9.95

VIDEO CHESS MODULE MODIFICATIONS DIAGRAMS

There are at least two types of Video Chess modules - their basic PC board designs are indicated below along with notations where to cut. All Video Chess modules have only one resistor though. The resistor is easy to discern if you know what you are looking for: a small canister with tiny stripes of different colors. These stripes are used by electrical technicians to tell the difference between the many types of resistors available. The other small canisters on your Video Chess board **DO NOT** have these stripes. Cut one of the wires (or leads) of the resistor.